

WE CLAIM:

1. A nonwoven laminate comprising at least one layer of tufted material located between at least two outer layers of non-woven material.

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2. The nonwoven laminate of claim 1 wherein the layer of tufted material is one layer of a bi-layer structure, the bi-layer structure also comprising one of the at least two outer layers of non-woven material.

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3. The nonwoven laminate of claim 2 wherein the tufted material is comprised of polymer and the non-woven material is coform.

4. The nonwoven laminate of claim 1 wherein the non-woven material is a non-woven absorbent material.

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5. A nonwoven laminate comprising at least two layers of tufted material oriented to produce an inner tufted laminate.

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6. The laminate of claim 5 wherein at least one of the at least two layers of tufted material has a bi-layer structure.

7. The laminate of claim 6 wherein each bi-layer structure comprises the tufted material and an outer layer of nonwoven composite material.

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8. The laminate of claim 7 wherein the nonwoven composite material is coform.

9. The laminate of claim 8 wherein the tufted material is a wire-tufted material comprised primarily of meltblown polymer.

10. The laminate of claim 9 wherein the meltblown polymer is a polyolefin selected from the group consisting of polypropylene, polyethylene polybutylene, copolymers, and mixtures and blends thereof.

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11. The laminate of claim 5 wherein the at least two inner layers are thermally bondable.

12. The laminate of claim 5 wherein each tuft is a projection measuring
10 between about three (3) mm and about five (5) mm in length.

13. The laminate of claim 5 wherein each tuft is a projection measuring at least about one (1) mm in length.

14. The laminate of claim 5 wherein each tuft is a projection measuring
15 at least about two (2) mm in length.

15. The laminate of claim 5 wherein each tuft is a projection measuring at least about three (3) mm in length.

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16. An internally wire-tufted laminate comprising:
at least two coform outer layers surrounding an inner layer of tufted meltblown material, the inner layer having a plurality of inner tufts and valleys and a plurality of outer depressions, the outer depressions visible from an exterior
25 surface of the laminate.

17. The internally wire-tufted laminate of claim 16 wherein the tufted meltblown material is bondable at each tuft.

18. The internally wire-tufted laminate of claim 16 wherein the inner layer of tufted meltblown material is comprised of a first layer of tufted material and a second layer of tufted material, each layer having the plurality of inner tufts and valleys and the plurality of outer depressions, further wherein the plurality of inner tufts of the first layer face the plurality of inner tufts of the second layer.

19. The internally wire-tufted laminate of claim 16 wherein the plurality of inner tufts are projections configured to form an identifiable pattern.

20. The internally wire-tufted laminate of claim 19 wherein the identifiable pattern is substantially uniform.

21. The internally wire-tufted laminate of claim 16 wherein the laminate is a disposable product selected from the group consisting of diaper, tissue, towel, wipe and any component or portion of a diaper, tissue, towel or wipe.

22. An absorbent sheet comprising:
an internally tufted laminate; and
an added liquid.

23. The absorbent sheet of claim 22 wherein the added liquid is selected from the group consisting of water, emollients, surfactants, fragrances, preservatives, chelating agents, pH buffers and combinations thereof.

24. The absorbent sheet of claim 23 further comprising additives selected from the group consisting of lotions, medicaments, and combinations thereof.

25. The absorbent sheet of claim 22 wherein the absorbent sheet is a personal care wet wipe.

26. The absorbent sheet of claim 23 wherein the sheet is disposable.

27. The laminate of claim 22 wherein the internally tufted laminate is
5 comprised of individual tufts.

28. The laminate of claim 27 wherein each individual tuft is a projection
measuring between about three (3) mm and about five (5) mm in length.

10 29. The laminate of claim 27 wherein each individual tuft is a projection
measuring at least about one (1) mm in length.

30. The laminate of claim 27 wherein each individual tuft is a projection
measuring at least about two (2) mm in length.
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31. The laminate of claim 27 wherein each individual tuft is a projection
measuring at least about three (3) mm in length.

32. The laminate of claim 22 wherein the internally tufted laminate is
20 comprised of a plurality of inner projections configured to form an identifiable
pattern.

33. The laminate of claim 32 wherein the identifiable pattern is
substantially uniform.
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34. A process for producing an internally tufted laminate comprising:
combining at least one tufted polymeric layer with at least two
nonwoven outer layers.

35. The process of claim 34 further comprising forcing polymeric fibers through a forming surface to produce the at least one tufted polymeric layer.

36. The process of claim 35 further comprising combining one of the at least two nonwoven outer layers with the tufted polymeric layer to produce a bi-layer structure.

37. The process of claim 36 further comprising:
bonding the bi-layer structure together to produce a tufted polymeric layer; and
combining the tufted polymeric layer with a second of the at least two nonwoven outer layers.

38. The process of claim 34 further comprising:
forming each of the at least two nonwoven outer layers and the tufted polymeric layer separately; and
laminating all formed layers together to produce the internally tufted laminate.

39. The process of claim 35 wherein the at least one tufted polymeric layer is produced with an air pressure gradient.

40. The process of claim 39 wherein the forming surfaces are wires having open areas of at least about 40%.

41. The process of claim 34 further comprising embossing the tufted laminate.

42. A process for producing a tufted laminate comprising:

combining at least two tufted polymeric layers in a manner to produce an internally-tufted laminate.

43. The process of claim 42 further comprising:
5 forcing polymeric fibers through a first forming surface to produce a first tufted polymeric layer; and
forcing polymeric fibers through a second forming surface to produce a second tufted polymeric layer.

10 44. The process of claim 43 further comprising:
adding a first nonwoven composite layer to the first tufted polymeric layer to produce a first bi-layer structure; and
adding a second nonwoven composite layer to the second tufted polymeric layer to produce a second bi-layer structure.

15 45. The process of claim 44 further comprising bonding the first and second bi-layer structures together with the first and second tufted polymeric layers to produce the internally-tufted laminate.

20 46. A product made according to the process of claim 34.

47. A product made according to the process of claim 42.

25 48. A kit, comprising:
at least one internally tufted laminate product; and
instructions for using the product, the instructions located on a container designed to contain the at least one internally tufted laminate product.

49. The kit of claim 48 wherein the internally tufted laminate product is a wet wipe or a plurality of wet wipes.

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FOOTNOTES